



ELSEVIER

Solar Energy Materials and Solar Cells 41/42 (1996) 655-661

Solar Energy Materials
and Solar Cells

Author index to volumes 41/42

- Abo-Arais, A., see Siebke, F. 41/42 (1996) 529
Ahmed, E., see Zegadi, A. 41/42 (1996) 295
Ahrenkiel, R.K., D. Levi and J. Arch, Recombination lifetime studies of silicon spheres 41/42 (1996) 171
Ahrenkiel, R.K., see Levi, D.H. 41/42 (1996) 381
Al-Jassim, M., see Levi, D.H. 41/42 (1996) 381
Al-Jassim, M.M., see Wanlass, M.W. 41/42 (1996) 405
Altermatt, P.P., see Zhao, J. 41/42 (1996) 87
Aoyama, S., see Ma, W. 41/42 (1996) 453
Arch, J., see Ahrenkiel, R.K. 41/42 (1996) 171
Asher, S., see Contreras, M.A. 41/42 (1996) 231
Asoka-Kumar, P., see Nelson, A.J. 41/42 (1996) 315
- Beck, E., see Burdick, J. 41/42 (1996) 575
Bekkedahl, T., see Ciszek, T.F. 41/42 (1996) 61
Bell, R.O., M. Prince, F.V. Wald, W. Schmidt and K.D. Rasch, A comparison of the behavior of solar silicon material in different production processes 41/42 (1996) 71
Beneking, C., see Kubon, M. 41/42 (1996) 485
Beneking, C., see Rech, B. 41/42 (1996) 475
Benner, J.P., see Sopori, B.L. 41/42 (1996) 159
Bennett, M.S., see McMahon, T.J. 41/42 (1996) 465
Bergmann, R., see Shi, Z. 41/42 (1996) 53
Bilger, G., see Zweigart, S. 41/42 (1996) 219
Bingham, C.E., see Tsuo, Y.S. 41/42 (1996) 41
Birkmire, R.W., see Levi, D.H. 41/42 (1996) 381
Bode, M.H., see Gabor, A.M. 41/42 (1996) 247
Boehmer, E., see Kubon, M. 41/42 (1996) 485
Boiko, M.E. and G.A. Medvedkin, Thermal oxidation of CuInSe_2 : Experiment and physico-chemical model 41/42 (1996) 307
Braunger, D., see Walter, T. 41/42 (1996) 355
Brendel, R., J.H. Werner and H.J. Queisser, Thermodynamic efficiency limits for semiconductor solar cells with carrier multiplication 41/42 (1996) 419
Brown, W.D., see Haque, M.S. 41/42 (1996) 543
Burdick, J., J. Pruett and E. Beck, Qualification testing of thin-film and crystalline photovoltaic modules 41/42 (1996) 575
Burrows, R.W., see Ciszek, T.F. 41/42 (1996) 61
- Campbell, P., see Wenham, S.R. 41/42 (1996) 3
Catalano, A., Polycrystalline thin-film technologies: Status and prospects 41/42 (1996) 205
Chen, Z., see Doshi, P. 41/42 (1996) 31
Chin, V.L., see Shi, Z. 41/42 (1996) 53

- Ciszek, T.F., T.H. Wang, R.W. Burrows, T. Bekkedahl, M.I. Symko and J.D. Webb,
Effect of nitrogen doping on microdefects and minority charge carrier lifetime of
high-purity, dislocation-free and multicrystalline silicon 41/42 (1996) 61
- Ciszek, T.F., see Tsuo, Y.S. 41/42 (1996) 41
- Ciszek, T.F., see Wang, T.H. 41/42 (1996) 19
- Contreras, M.A., J. Tuttle, A. Gabor, A. Tennant, K. Ramanathan, S. Asher, A. Franz, J.
Keane, L. Wang and R. Noufi, High efficiency graded bandgap thin-film polycrys-
talline Cu(In,Ga)Se₂-based solar cells 41/42 (1996) 231
- Contreras, M.A., see Gabor, A.M. 41/42 (1996) 247
- Contreras, M.A., see Nelson, A.J. 41/42 (1996) 315
- Coutts, T.J., see Wanlass, M.W. 41/42 (1996) 405
- D'Aiello, R., see Osterwald, C.R. 41/42 (1996) 629
- De Clercq, K., see Nijs, J. 41/42 (1996) 101
- Demesmaeker, E., see Nijs, J. 41/42 (1996) 101
- Deng, X., see Sopori, B.L. 41/42 (1996) 159
- Dhere, N.G. and K.W. Lynn, CuIn_{1-x}Ga_xSe₂ thin film solar cells by two-selenizations
process using Se vapor 41/42 (1996) 271
- Dittrich, H., see Walter, T. 41/42 (1996) 355
- Doshi, P., A. Rohatgi, M. Ropp, Z. Chen, D. Ruby and D.L. Meier, Rapid thermal
processing of high-efficiency silicon solar cells with controlled in-situ annealing 41/42 (1996) 31
- Eberspacher, C., C.F. Gay and P.D. Moskowitz, Strategies for enhancing the commer-
cial viability of CdTe-based photovoltaics 41/42 (1996) 637
- Edmiston, S., see Honsberg, C.B. 41/42 (1996) 183
- Edmiston, S., see Wenham, S.R. 41/42 (1996) 3
- Egawa, T., see Umeno, M. 41/42 (1996) 395
- Emery, K., see Strand, T. 41/42 (1996) 617
- Emery, K.A., see Wanlass, M.W. 41/42 (1996) 405
- Estreicher, S.K., see Sopori, B.L. 41/42 (1996) 159
- Ferreira, I., see Martins, R. 41/42 (1996) 493
- Fortunato, E., see Martins, R. 41/42 (1996) 493
- Franz, A., see Contreras, M.A. 41/42 (1996) 231
- Franz, A., see Gabor, A.M. 41/42 (1996) 247
- Frisson, L., see Nijs, J. 41/42 (1996) 101
- Gabor, A., see Contreras, M.A. 41/42 (1996) 231
- Gabor, A.M., J.R. Tuttle, M.H. Bode, A. Franz, A.L. Tennant, M.A. Contreras, R.
Noufi, D.G. Jensen and A.M. Hermann, Band-gap engineering in Cu(In,Ga)Se₂ thin
films grown from (In,Ga)₂Se₃ precursors 41/42 (1996) 247
- Gabor, A.M., see Nelson, A.J. 41/42 (1996) 315
- Gay, C.F., see Eberspacher, C. 41/42 (1996) 637
- Gee, J.M., see Schubert, W.K. 41/42 (1996) 137
- Ghannam, M., see Nijs, J. 41/42 (1996) 101
- Green, M.A., see Honsberg, C.B. 41/42 (1996) 183
- Green, M.A., see Keevers, M.J. 41/42 (1996) 195
- Green, M.A., see Shi, Z. 41/42 (1996) 53
- Green, M.A., see Wenham, S.R. 41/42 (1996) 3
- Green, M.A., see Zhao, J. 41/42 (1996) 87
- Guimarães, L., see Martins, R. 41/42 (1996) 493

- Hamakawa, Y., see Ma, W. 41/42 (1996) 453
- Hammond, R., see Osterwald, C.R. 41/42 (1996) 629
- Hanitsch, R., see Krauter, S. 41/42 (1996) 557
- Hansen, R., see Strand, T. 41/42 (1996) 617
- Haque, M.S., H.A. Naseem and W.D. Brown, Aluminum-induced degradation and failure mechanisms of a-Si:H solar cells 41/42 (1996) 543
- Hariskos, D., M. Ruckh, U. Rühle, T. Walter, H.W. Schock, J. Hedström and L. Stolt, A novel cadmium free buffer layer for Cu(In,Ga)Se₂ based solar cells 41/42 (1996) 345
- Hasoon, F.S., see Levi, D.H. 41/42 (1996) 381
- Hedström, J., see Hariskos, D. 41/42 (1996) 345
- Heiser, G., see Wenham, S.R. 41/42 (1996) 3
- Herberholz, R., see Walter, T. 41/42 (1996) 355
- Hermann, A.M., see Gabor, A.M. 41/42 (1996) 247
- Hill, A.E., see Zegadi, A. 41/42 (1996) 295
- Hishikawa, Y., K. Ninomiya, E. Maruyama, S. Kuroda, A. Terakawa, K. Sayama, H. Tarui, M. Sasaki, S. Tsuda and S. Nakano, Approaches for stable multi-junction a-Si solar cells 41/42 (1996) 441
- Homberg, F., see Pauli, M. 41/42 (1996) 119
- Honsberg, C.B., S. Edmiston, L. Koschier, S.R. Wenham, A.B. Sproul and M.A. Green, Capitalizing on two dimensional minority carrier injection in silicon solar cell design 41/42 (1996) 183
- Honsberg, C.B., see Wenham, S.R. 41/42 (1996) 3
- Hund, T.D., see Schubert, W.K. 41/42 (1996) 137
- Jensen, D.G., see Gabor, A.M. 41/42 (1996) 247
- Jimbo, T., see Umeno, M. 41/42 (1996) 395
- Jones, K.M., see Wanlass, M.W. 41/42 (1996) 405
- Kaiser, M., see Ruckh, M. 41/42 (1996) 335
- Kato, T., see Umeno, M. 41/42 (1996) 395
- Kazmerski, L.L., see Levi, D.H. 41/42 (1996) 381
- Keane, J., see Contreras, M.A. 41/42 (1996) 231
- Keever, M.J. and M.A. Green, Extended infrared response of silicon solar cells and the impurity photovoltaic effect 41/42 (1996) 195
- Kessler, J., see Menezes, S. 41/42 (1996) 325
- Keyes, B.M., see Levi, D.H. 41/42 (1996) 381
- King, D.L., see Schubert, W.K. 41/42 (1996) 137
- Köble, Ch., see Walter, T. 41/42 (1996) 355
- Koschier, L., see Honsberg, C.B. 41/42 (1996) 183
- Koschier, L., see Wenham, S.R. 41/42 (1996) 3
- Krauter, S. and R. Hanitsch, Actual optical and thermal performance of PV-modules 41/42 (1996) 557
- Krühler, W., see Pauli, M. 41/42 (1996) 119
- Krühler, W., see Reindl, T. 41/42 (1996) 127
- Kubon, M., E. Boehmer, F. Siebke, B. Rech, C. Beneking and H. Wagner, Solution of the ZnO/p contact problem in a-Si:H solar cells 41/42 (1996) 485
- Kuroda, S., see Hishikawa, Y. 41/42 (1996) 441
- Landry, M.D., see Tsuo, Y.S. 41/42 (1996) 41
- Levi, D., see Ahrenkiel, R.K. 41/42 (1996) 171
- Levi, D.H., H.R. Moutinho, F.S. Hasoon, B.M. Keyes, R.K. Ahrenkiel, M. Al-Jassim, L.L. Kazmerski and R.W. Birkmire, Micro through nanostructure investigations of polycrystalline CdTe: Correlations with processing and electronic structures 41/42 (1996) 381
- Lewandowski, A., see Tsuo, Y.S. 41/42 (1996) 41
- Lewerenz, H.J., see Scheer, R. 41/42 (1996) 261

- Liu, X., see Sites, J.R. 41/42 (1996) 373
- Lotter, E., see Wanka, H.N. 41/42 (1996) 519
- Luck, I., see Scheer, R. 41/42 (1996) 261
- Lynn, K.G., see Nelson, A.J. 41/42 (1996) 315
- Lynn, K.W., see Dhere, N.G. 41/42 (1996) 271
- Ma, W., S. Aoyama, H. Okamoto and Y. Hamakawa, A study of interface properties in a-Si solar cells with $\mu\text{-c-Si(C)}$ 41/42 (1996) 453
- Martins, R., M. Vieira, I. Ferreira, E. Fortunato and L. Guimarães, Transport properties of doped silicon oxycarbide microcrystalline films produced by spatial separation techniques 41/42 (1996) 493
- Maruyama, E., see Hishikawa, Y. 41/42 (1996) 441
- Mason, A., see Nelson, A.J. 41/42 (1996) 315
- Matson, R., see Wang, T.H. 41/42 (1996) 19
- Matson, R.J., see Menezes, S. 41/42 (1996) 325
- McMahon, T.J. and M.S. Bennett, Metastable shunt paths in a-Si solar cells 41/42 (1996) 465
- Medvedkin, G.A., see Boiko, M.E. 41/42 (1996) 307
- Meier, D.L., see Doshi, P. 41/42 (1996) 31
- Menezes, S., J. Kessler, D. Schmid, H.W. Schock and R.J. Matson, Use of n -type $(\text{Cu}_2\text{Se})_x(\text{In}_2\text{Se}_3)_{1-x}$ ordered defect chalcopyrite films for solar cell absorber layers 41/42 (1996) 325
- Menna, P., see Tsuo, Y.S. 41/42 (1996) 41
- Mertens, R., see Nijs, J. 41/42 (1996) 101
- Moskowitz, P.D., see Eberspacher, C. 41/42 (1996) 637
- Moutinho, H., see Wang, T.H. 41/42 (1996) 19
- Moutinho, H.R., see Levi, D.H. 41/42 (1996) 381
- Mrig, L., see Strand, T. 41/42 (1996) 617
- Müller, J., see Pauli, M. 41/42 (1996) 119
- Müller, J., see Reindl, T. 41/42 (1996) 127
- Nakano, S., see Hishikawa, Y. 41/42 (1996) 441
- Naseem, H.A., see Haque, M.S. 41/42 (1996) 543
- Nelson, A.J., A.M. Gabor, M.A. Contreras, A. Mason, P. Asoka-Kumar and K.G. Lynn, Relation of polycrystalline Cu(In,Ga)Se_2 device efficiency with junction depth and interfacial structure 41/42 (1996) 315
- Nijs, J., E. Demesmaeker, J. Szlufcik, J. Poortmans, L. Frisson, K. De Clercq, M. Ghannam, R. Mertens and R. Van Overstraeten, Recent improvements in the screen-printing technology and comparison with the buried contact technology by 2D-simulation 41/42 (1996) 101
- Ninomiya, K., see Hishikawa, Y. 41/42 (1996) 441
- Noufi, R., see Contreras, M.A. 41/42 (1996) 231
- Noufi, R., see Gabor, A.M. 41/42 (1996) 247
- Okamoto, H., see Ma, W. 41/42 (1996) 453
- Osterwald, C.R., R. Hammond, G. Zerlaut and R. D'Aiello, Photovoltaic module certification and laboratory accreditation criteria development 41/42 (1996) 629
- Park, Y.K., see Sopor, B.L. 41/42 (1996) 159
- Pauli, M., T. Reindl, W. Krühler, F. Homberg and J. Müller, A new fabrication method for multicrystalline silicon layers on graphite substrates suited for low-cost thin film solar cells 41/42 (1996) 119
- Pauli, M., see Reindl, T. 41/42 (1996) 127
- Pern, F.J., Factors that affect the EVA encapsulant discoloration rate upon accelerated exposure 41/42 (1996) 587

- Pilkington, R.D., see Zegadi, A. 41/42 (1996) 295
- Pitts, J.R., see Tsuo, Y.S. 41/42 (1996) 41
- Poortmans, J., see Nijs, J. 41/42 (1996) 101
- Prince, M., see Bell, R.O. 41/42 (1996) 71
- Pruett, J., see Burdick, J. 41/42 (1996) 575
- Queisser, H.J., see Brendel, R. 41/42 (1996) 419
- Ramanathan, K., see Contreras, M.A. 41/42 (1996) 231
- Rasch, K.D., see Bell, R.O. 41/42 (1996) 71
- Rech, B., C. Beneking and H. Wagner, Improvement in stabilized efficiency of a-Si:H solar cells through optimized p/i-interface layers 41/42 (1996) 475
- Rech, B., see Kubon, M. 41/42 (1996) 485
- Reindl, T., W. Krühler, M. Pauli and J. Müller, Electrical and structural properties of the Si/C interface in poly-Si thin films on graphite substrates 41/42 (1996) 127
- Reindl, T., see Pauli, M. 41/42 (1996) 119
- Roberson, M.A., see Sopori, B.L. 41/42 (1996) 159
- Rohatgi, A., see Doshi, P. 41/42 (1996) 31
- Rohatgi, A., see Sopori, B.L. 41/42 (1996) 159
- Ropp, M., see Doshi, P. 41/42 (1996) 31
- Ruby, D., see Doshi, P. 41/42 (1996) 31
- Ruckh, M., D. Schmid, M. Kaiser, R. Schäffler, T. Walter and H.W. Schock, Influence of substrates on the electrical properties of Cu(In,Ga)Se₂ thin films 41/42 (1996) 335
- Ruckh, M., see Hariskos, D. 41/42 (1996) 345
- Ruckh, M., see Schmid, D. 41/42 (1996) 281
- Rühle, U., see Hariskos, D. 41/42 (1996) 345
- Sana, P., see Sopori, B.L. 41/42 (1996) 159
- Sasaki, M., see Hishikawa, Y. 41/42 (1996) 441
- Sayama, K., see Hishikawa, Y. 41/42 (1996) 441
- Schäffler, R., see Ruckh, M. 41/42 (1996) 335
- Scheer, R., I. Luck, H. Sehnert and H.J. Lewerenz, Scavenging of excess Cu atoms in CuInS₂ films by sulphur annealing 41/42 (1996) 261
- Schmid, D., M. Ruckh and H.W. Schock, A comprehensive characterization of the interfaces in Mo/CIS/CdS/ZnO solar cell structures 41/42 (1996) 281
- Schmid, D., see Menezes, S. 41/42 (1996) 325
- Schmid, D., see Ruckh, M. 41/42 (1996) 335
- Schmidt, W., see Bell, R.O. 41/42 (1996) 71
- Schock, H.W., see Hariskos, D. 41/42 (1996) 345
- Schock, H.W., see Menezes, S. 41/42 (1996) 325
- Schock, H.W., see Ruckh, M. 41/42 (1996) 335
- Schock, H.W., see Schmid, D. 41/42 (1996) 281
- Schock, H.W., see Walter, T. 41/42 (1996) 355
- Schock, H.W., see Zweigart, S. 41/42 (1996) 219
- Schropp, R.E.I., see Vanmaackelbergh, D. 41/42 (1996) 537
- Schubert, M.B., see Wanka, H.N. 41/42 (1996) 519
- Schubert, W.K., D.L. King, T.D. Hund and J.M. Gee, 15%-Efficient multicrystalline-silicon photovoltaic modules: cell processing and characterization 41/42 (1996) 137
- Schwerdtfeger, C.R., see Wang, T.H. 41/42 (1996) 19
- Sehnert, H., see Scheer, R. 41/42 (1996) 261
- Shi, Z., W. Zhang, G.F. Zheng, V.L. Chin, A. Stephens, M.A. Green and R. Bergmann, The effects of solvent and dopant impurities on the performance of LPE silicon solar cells 41/42 (1996) 53

- Shi, Z., see Wenham, S.R. 41/42 (1996) 3
- Siebke, F., H. Stiebig, A. Abo-Arais and H. Wagner, Charged and neutral defect states in a-Si:H determined from improved analysis of the constant photocurrent method 41/42 (1996) 529
- Siebke, F., see Kubon, M. 41/42 (1996) 485
- Sites, J.R. and X. Liu, Recent efficiency gains for CdTe and $\text{CuIn}_{1-x}\text{Ga}_x\text{Se}_2$ solar cells: What has changed? 41/42 (1996) 373
- Soga, T., see Umeno, M. 41/42 (1996) 395
- Sopori, B.L., X. Deng, J.P. Benner, A. Rohatgi, P. Sana, S.K. Estreicher, Y.K. Park and M.A. Roberson, Hydrogen in silicon: A discussion of diffusion and passivation mechanisms 41/42 (1996) 159
- Sproul, A.B., see Honsberg, C.B. 41/42 (1996) 183
- Sproul, A.B., see Wenham, S.R. 41/42 (1996) 3
- Stephens, A., see Shi, Z. 41/42 (1996) 53
- Stiebig, H., see Siebke, F. 41/42 (1996) 529
- Stolt, L., see Hariskos, D. 41/42 (1996) 345
- Strand, T., L. Mrig, R. Hansen and K. Emery, Technical evaluation of a dual-junction same-band-gap amorphous silicon photovoltaic system 41/42 (1996) 617
- Sun, S.M., see Zweigart, S. 41/42 (1996) 219
- Symko, M.I., see Ciszek, T.F. 41/42 (1996) 61
- Szlufcik, J., see Nijs, J. 41/42 (1996) 101
- Tarui, H., see Hishikawa, Y. 41/42 (1996) 441
- Tennant, A., see Contreras, M.A. 41/42 (1996) 231
- Tennant, A.L., see Gabor, A.M. 41/42 (1996) 247
- Terakawa, A., see Hishikawa, Y. 41/42 (1996) 441
- Thorpe, D., see Wenham, S.R. 41/42 (1996) 3
- Tomlinson, R.D., see Zegadi, A. 41/42 (1996) 295
- Tsuda, S., see Hishikawa, Y. 41/42 (1996) 441
- Tsuo, Y.S., J.R. Pitts, M.D. Landry, P. Menna, C.E. Bingham, A. Lewandowski and T.F. Ciszek, High-flux solar furnace processing of silicon solar cells 41/42 (1996) 41
- Tuttle, J., see Contreras, M.A. 41/42 (1996) 231
- Tuttle, J.R., see Gabor, A.M. 41/42 (1996) 247
- Umeno, M., T. Kato, T. Egawa, T. Soga and T. Jimbo, High efficiency AlGaAs/Si tandem solar cell over 20% 41/42 (1996) 395
- Van de Lagemaat, J., see Vanmaekelbergh, D. 41/42 (1996) 537
- Vanmaekelbergh, D., J. van de Lagemaat and R.E.I. Schropp, Observation and explanation of quantum efficiencies exceeding unity in amorphous silicon solar cells 41/42 (1996) 537
- Van Overstraeten, R., see Nijs, J. 41/42 (1996) 101
- Vieira, M., see Martins, R. 41/42 (1996) 493
- Wagner, H., see Kubon, M. 41/42 (1996) 485
- Wagner, H., see Rech, B. 41/42 (1996) 475
- Wagner, H., see Siebke, F. 41/42 (1996) 529
- Wald, F.V., see Bell, R.O. 41/42 (1996) 71
- Walter, T., D. Braunger, H. Dittrich, Ch. Köble, R. Herberholz and H.W. Schock, Sequential processes for the deposition of polycrystalline Cu(In,Ga)(S,Se)_2 thin films: Growth mechanism and devices 41/42 (1996) 355
- Walter, T., see Hariskos, D. 41/42 (1996) 345
- Walter, T., see Ruckh, M. 41/42 (1996) 335
- Wang, A., see Zhao, J. 41/42 (1996) 87
- Wang, L., see Contreras, M.A. 41/42 (1996) 231

- Wang, T.H., T.F. Ciszek, C.R. Schwerdtfeger, H. Moutinho and R. Matson, Growth of silicon thin layers on cast MG-Si from metal solutions for solar cells 41/42 (1996) 19
- Wang, T.H., see Ciszek, T.F. 41/42 (1996) 61
- Wanka, H.N., M.B. Schubert and E. Lotter, Growth of a-Si:H on transparent conductive oxides for solar cell applications 41/42 (1996) 519
- Wanlass, M.W., J.S. Ward, K.A. Emery, M.M. Al-Jassim, K.M. Jones and T.J. Coutts, $Ga_xIn_{1-x}As$ thermophotovoltaic converters 41/42 (1996) 405
- Ward, J.S., see Wanlass, M.W. 41/42 (1996) 405
- Webb, J.D., see Ciszek, T.F. 41/42 (1996) 61
- Wenham, S.R., M.A. Green, S. Edmiston, P. Campbell, L. Koschier, C.B. Honsberg, A.B. Sproul, D. Thorpe, Z. Shi and G. Heiser, Limits to the efficiency of silicon multilayer thin film solar cells 41/42 (1996) 3
- Wenham, S.R., see Honsberg, C.B. 41/42 (1996) 183
- Wenham, S.R., see Zhao, J. 41/42 (1996) 87
- Werner, J.H., see Brendel, R. 41/42 (1996) 419
- Wronski, C.R., Amorphous silicon technology: Coming of age 41/42 (1996) 427
- Yakushev, M.V., see Zegadi, A. 41/42 (1996) 295
- Zegadi, A., M.V. Yakushev, E. Ahmed, R.D. Pilkington, A.E. Hill and R.D. Tomlinson, A photoacoustic study on the effect of Se content on defect levels in $CuInSe_2$ single crystals 41/42 (1996) 295
- Zerlaut, G., see Osterwald, C.R. 41/42 (1996) 629
- Zhang, W., see Shi, Z. 41/42 (1996) 53
- Zhao, J., A. Wang, P.P. Altermatt, S.R. Wenham and M.A. Green, 24% Efficient perovskite silicon solar cell: Recent improvements in high efficiency silicon cell research 41/42 (1996) 87
- Zheng, G.F., see Shi, Z. 41/42 (1996) 53
- Zweigart, S., S.M. Sun, G. Bilger and H.W. Schock, $CuInSe_2$ film growth using precursors deposited at low temperature 41/42 (1996) 219





ELSEVIER

Solar Energy Materials and Solar Cells 41/42 (1996) 663-672

Solar Energy Materials
and Solar Cells

Subject index to volumes 41/42

Aluminium

- Growth of silicon thin layers on cast MG-Si from metal solutions for solar cells, T.H. Wang, T.F. Cizek, C.R. Schwerdtfeger, H. Moutinho and R. Matson 41/42 (1996) 19
- Aluminum-induced degradation and failure mechanisms of a-Si:H solar cells, M.S. Haque, H.A. Naseem and W.D. Brown 41/42 (1996) 543

Amorphous silicon, hydrogenated amorphous Si, general material properties

- Approaches for stable multi-junction a-Si solar cells, Y. Hishikawa, K. Ninomiya, E. Maruyama, S. Kuroda, A. Terakawa, K. Sayama, H. Tarui, M. Sasaki, S. Tsuda and S. Nakano 41/42 (1996) 441
- Improvement in stabilized efficiency of a-Si:H solar cells through optimized p/i-interface layers, B. Rech, C. Beneking and H. Wagner 41/42 (1996) 475
- Solution of the ZnO/p contact problem in a-Si:H solar cells, M. Kubon, E. Boehmer, F. Siebke, B. Rech, C. Beneking and H. Wagner 41/42 (1996) 485
- Growth of a-Si:H on transparent conductive oxides for solar cell applications, H.N. Wanka, M.B. Schubert and E. Lotter 41/42 (1996) 519
- Charged and neutral defect states in a-Si:H determined from improved analysis of the constant photocurrent method, F. Siebke, H. Stiebig, A. Abo-Arais and H. Wagner 41/42 (1996) 529
- Observation and explanation of quantum efficiencies exceeding unity in amorphous silicon solar cells, D. Vanmaekelbergh, J. van de Lagemaat and R.E.I. Schropp 41/42 (1996) 537
- Technical evaluation of a dual-junction same-band-gap amorphous silicon photovoltaic system, T. Strand, L. Mrig, R. Hansen and K. Emery 41/42 (1996) 617

Amorphous silicon, hydrogenated amorphous Si, general solar cell properties and device physics

- Amorphous silicon technology: Coming of age, C.R. Wronski 41/42 (1996) 427
- A study of interface properties in a-Si solar cells with $\mu\text{c-Si}(\text{C})$, W. Ma, S. Aoyama, H. Okamoto and Y. Hamakawa 41/42 (1996) 453
- Metastable shunt paths in a-Si solar cells, T.J. McMahon and M.S. Bennett 41/42 (1996) 465
- Aluminum-induced degradation and failure mechanisms of a-Si:H solar cells, M.S. Haque, H.A. Naseem and W.D. Brown 41/42 (1996) 543

Annealing

- Scavenging of excess Cu atoms in CuInS_2 films by sulphur annealing, R. Scheer, I. Luck, H. Sehnert and H.J. Lewerenz 41/42 (1996) 261

Cadmium sulfide, CdS

- A comprehensive characterization of the interfaces in Mo/CIS/CdS/ZnO solar cell structures, D. Schmid, M. Ruckh and H.W. Schock 41/42 (1996) 281

Cadmium telluride, CdTe

- Recent efficiency gains for CdTe and $\text{CuIn}_{1-x}\text{Ga}_x\text{Se}_2$ solar cells: What has changed?, J.R. Sites and X. Liu 41/42 (1996) 373
- Micro through nanostructure investigations of polycrystalline CdTe: Correlations with processing and electronic structures, D.H. Levi, H.R. Moutinho, F.S. Hasoon, B.M. Keyes, R.K. Ahrenkiel, M. Al-Jassim, L.L. Kazmerski and R.W. Birkmire 41/42 (1996) 381

Carrier Lifetime

- The effects of solvent and dopant impurities on the performance of LPE silicon solar cells, Z. Shi, W. Zhang, G.F. Zheng, V.L. Chin, A. Stephens, M.A. Green and R. Bergmann 41/42 (1996) 53

Chalcopyrite compounds

- Thermal oxidation of CuInSe_2 : Experiment and physico-chemical model, M.E. Boiko and G.A. Medvedkin 41/42 (1996) 307
- Use of n -type $(\text{Cu}_2\text{Se})_x(\text{In}_2\text{Se}_3)_{1-x}$ ordered defect chalcopyrite films for solar cell absorber layers, S. Menezes, J. Kessler, D. Schmid, H.W. Schock and R.J. Matson 41/42 (1996) 325
- Sequential processes for the deposition of polycrystalline $\text{Cu}(\text{In,Ga})(\text{S,Se})_2$ thin films: Growth mechanism and devices, T. Walter, D. Braunger, H. Dittrich, Ch. Köble, R. Herberholz and H.W. Schock 41/42 (1996) 355

Chemical vapour deposition

- Hydrogen in silicon: A discussion of diffusion and passivation mechanisms, B.L. Sopori, X. Deng, J.P. Benner, A. Rohatgi, P. Sana, S.K. Estreicher, Y.K. Park and M.A. Roberson 41/42 (1996) 159

Copper compounds

- Scavenging of excess Cu atoms in CuInS_2 films by sulphur annealing, R. Scheer, I. Luck, H. Schnert and H.J. Lewerenz 41/42 (1996) 261

Copper gallium indium selenide, $\text{CuGa}_x\text{In}_{1-x}\text{Se}$

- High efficiency graded bandgap thin-film polycrystalline $\text{Cu}(\text{In,Ga})\text{Se}_2$ -based solar cells, M.A. Contreras, J. Tuttle, A. Gabor, A. Tennant, K. Ramanathan, S. Asher, A. Franz, J. Keane, L. Wang and R. Noufi 41/42 (1996) 231
- $\text{CuIn}_{1-x}\text{Ga}_x\text{Se}_2$ thin film solar cells by two-selenizations process using Se vapor, N.G. Dhre and K.W. Lynn 41/42 (1996) 271

Copper gallium selenide, CuGaSe_2

- Relation of polycrystalline $\text{Cu}(\text{In,Ga})\text{Se}_2$ device efficiency with junction depth and interfacial structure, A.J. Nelson, A.M. Gabor, M.A. Contreras, A. Mason, P. Asoka-Kumar and K.G. Lynn 41/42 (1996) 315

- Influence of substrates on the electrical properties of $\text{Cu}(\text{In,Ga})\text{Se}_2$ thin films, M. Ruckh, D. Schmid, M. Kaiser, R. Schäffler, T. Walter and H.W. Schock 41/42 (1996) 335
- A novel cadmium free buffer layer for $\text{Cu}(\text{In,Ga})\text{Se}_2$ based solar cells, D. Hariskos, M. Ruckh, U. Rühle, T. Walter, H.W. Schock, J. Hedström and L. Stolt 41/42 (1996) 345
- Sequential processes for the deposition of polycrystalline $\text{Cu}(\text{In,Ga})(\text{S,Se})_2$ thin films: Growth mechanism and devices, T. Walter, D. Braunger, H. Dittrich, Ch. Köble, R. Herberholz and H.W. Schock 41/42 (1996) 355

Copper indium selenide, CuInSe_2

- CuInSe_2 film growth using precursors deposited at low temperature, S. Zweigart, S.M. Sun, G. Bilger and H.W. Schock 41/42 (1996) 219
- Band-gap engineering in $\text{Cu}(\text{In,Ga})\text{Se}_2$ thin films grown from $(\text{In,Ga})_2\text{Se}_3$ precursors, A.M. Gabor, J.R. Tuttle, M.H. Bode, A. Franz, A.L. Tennant, M.A. Contreras, R. Noufi, D.G. Jensen and A.M. Hermann 41/42 (1996) 247
- Scavenging of excess Cu atoms in CuInS_2 films by sulphur annealing, R. Scheer, I. Luck, H. Sehnert and H.J. Lewerenz 41/42 (1996) 261
- A photoacoustic study on the effect of Se content on defect levels in CuInSe_2 single crystals, A. Zegadi, M.V. Yakushev, E. Ahmed, R.D. Pilkington, A.E. Hill and R.D. Tomlinson 41/42 (1996) 295
- Thermal oxidation of CuInSe_2 : Experiment and physico-chemical model, M.E. Boiko and G.A. Medvedkin 41/42 (1996) 307
- Relation of polycrystalline $\text{Cu}(\text{In,Ga})\text{Se}_2$ device efficiency with junction depth and interfacial structure, A.J. Nelson, A.M. Gabor, M.A. Contreras, A. Mason, P. Asoka-Kumar and K.G. Lynn 41/42 (1996) 315
- Influence of substrates on the electrical properties of $\text{Cu}(\text{In,Ga})\text{Se}_2$ thin films, M. Ruckh, D. Schmid, M. Kaiser, R. Schäffler, T. Walter and H.W. Schock 41/42 (1996) 335
- A novel cadmium free buffer layer for $\text{Cu}(\text{In,Ga})\text{Se}_2$ based solar cells, D. Hariskos, M. Ruckh, U. Rühle, T. Walter, H.W. Schock, J. Hedström and L. Stolt 41/42 (1996) 345
- Sequential processes for the deposition of polycrystalline $\text{Cu}(\text{In,Ga})(\text{S,Se})_2$ thin films: Growth mechanism and devices, T. Walter, D. Braunger, H. Dittrich, Ch. Köble, R. Herberholz and H.W. Schock 41/42 (1996) 355

Copper indium sulfide, CuInS_2

- Sequential processes for the deposition of polycrystalline $\text{Cu}(\text{In,Ga})(\text{S,Se})_2$ thin films: Growth mechanism and devices, T. Walter, D. Braunger, H. Dittrich, Ch. Köble, R. Herberholz and H.W. Schock 41/42 (1996) 355

Crystalline silicon, cells and related coatings

- 15%-Efficient multicrystalline-silicon photovoltaic modules: cell processing and characterization, W.K. Schubert, D.L. King, T.D. Hund and J.M. Gee 41/42 (1996) 137

Crystalline silicon, MIS cells

- Qualification testing of thin-film and crystalline photovoltaic modules, J. Burdick, J. Pruett and E. Beck 41/42 (1996) 575

Crystalline silicon, production

- Effect of nitrogen doping on microdefects and minority charge carrier lifetime of high-purity, dislocation-free and multicrystalline silicon, T.F. Cizek, T.H. Wang, R.W. Burrows, T. Bekkedahl, M.I. Symko and J.D. Webb 41/42 (1996) 61

- A new fabrication method for multicrystalline silicon layers on graphite substrates suited for low-cost thin film solar cells, M. Pauli, T. Reindl, W. Krühler, F. Homberg and J. Müller 41/42 (1996) 119
- Electrical and structural properties of the Si/C interface in poly-Si thin films on graphite substrates, T. Reindl, W. Krühler, M. Pauli and J. Müller 41/42 (1996) 127

Cu

- Growth of silicon thin layers on cast MG-Si from metal solutions for solar cells, T.H. Wang, T.F. Cizek, C.R. Schwerdtfeger, H. Moutinho and R. Matson 41/42 (1996) 19

$Cu_{1-y}Ag_yInS_{2(1-x)}Se_{2x}$

- Recent efficiency gains for CdTe and $CuIn_{1-x}Ga_xSe_2$ solar cells: What has changed?, J.R. Sites and X. Liu 41/42 (1996) 373

Efficiency

- Rapid thermal processing of high-efficiency silicon solar cells with controlled in-situ annealing, P. Doshi, A. Rohatgi, M. Ropp, Z. Chen, D. Ruby and D.L. Meier 41/42 (1996) 31
- A comparison of the behavior of solar silicon material in different production processes, R.O. Bell, M. Prince, F.V. Wald, W. Schmidt and K.D. Rasch 41/42 (1996) 71
- 24% Efficient perl silicon solar cell: Recent improvements in high efficiency silicon cell research, J. Zhao, A. Wang, P.P. Altermatt, S.R. Wenham and M.A. Green 41/42 (1996) 87
- Recent improvements in the screenprinting technology and comparison with the buried contact technology by 2D-simulation, J. Nijs, E. Demesmaeker, J. Szlufcik, J. Poortmans, L. Frisson, K. De Clercq, M. Ghannam, R. Mertens and R. Van Overstraeten 41/42 (1996) 101
- $CuInSe_2$ film growth using precursors deposited at low temperature, S. Zweigart, S.M. Sun, G. Bilger and H.W. Schock 41/42 (1996) 219
- High efficiency graded bandgap thin-film polycrystalline $Cu(In,Ga)Se_2$ -based solar cells, M.A. Contreras, J. Tuttle, A. Gabor, A. Tennant, K. Ramanathan, S. Asher, A. Franz, J. Keane, L. Wang and R. Noufi 41/42 (1996) 231
- Relation of polycrystalline $Cu(In,Ga)Se_2$ device efficiency with junction depth and interfacial structure, A.J. Nelson, A.M. Gabor, M.A. Contreras, A. Mason, P. Asoka-Kumar and K.G. Lynn 41/42 (1996) 315
- Recent efficiency gains for CdTe and $CuIn_{1-x}Ga_xSe_2$ solar cells: What has changed?, J.R. Sites and X. Liu 41/42 (1996) 373
- High efficiency $AlGaAs/Si$ tandem solar cell over 20%, M. Umeno, T. Kato, T. Egawa, T. Soga and T. Jimbo 41/42 (1996) 395
- Thermodynamic efficiency limits for semiconductor solar cells with carrier multiplication, R. Brendel, J.H. Werner and H.J. Queisser 41/42 (1996) 419
- Approaches for stable multi-junction a-Si solar cells, Y. Hishikawa, K. Ninomiya, E. Maruyama, S. Kuroda, A. Terakawa, K. Sayama, H. Tarui, M. Sasaki, S. Tsuda and S. Nakano 41/42 (1996) 441
- Improvement in stabilized efficiency of a-Si:H solar cells through optimized p/i-interface layers, B. Rech, C. Beneking and H. Wagner 41/42 (1996) 475

Electrical properties

- Electrical and structural properties of the Si/C interface in poly-Si thin films on graphite substrates, T. Reindl, W. Krühler, M. Pauli and J. Müller 41/42 (1996) 127

- Influence of substrates on the electrical properties of $\text{Cu}(\text{In,Ga})\text{Se}_2$ thin films, M. Ruckh, D. Schmid, M. Kaiser, R. Schäffler, T. Walter and H.W. Schock 41/42 (1996) 335

Electron-hole recombination

- Recombination lifetime studies of silicon spheres, R.K. Ahrenkiel, D. Levi and J. Arch 41/42 (1996) 171

Ellipsometry

- Growth of a-Si:H on transparent conductive oxides for solar cell applications, H.N. Wanka, M.B. Schubert and E. Lotter 41/42 (1996) 519

Encapsulation

- Actual optical and thermal performance of PV-modules, S. Krauter and R. Hanitsch 41/42 (1996) 557
Factors that affect the EVA encapsulant discoloration rate upon accelerated exposure, F.J. Pern 41/42 (1996) 587

Environmental degradation and testing

- Strategies for enhancing the commercial viability of CdTe-based photovoltaics, C. Eberspacher, C.F. Gay and P.D. Moskowitz 41/42 (1996) 637

Gallium arsenide and gallium aluminium arsenide, GaAs, $\text{Ga}_{1-x}\text{Al}_x\text{As}$

- High efficiency AlGaAs/Si tandem solar cell over 20%, M. Umeno, T. Kato, T. Egawa, T. Soga and T. Jimbo 41/42 (1996) 395
 $\text{Ga}_{1-x}\text{In}_x\text{As}$ thermophotovoltaic converters, M.W. Wanlass, J.S. Ward, K.A. Emery, M.M. Al-Jassim, K.M. Jones and T.J. Coutts 41/42 (1996) 405

Hall effect

- The effects of solvent and dopant impurities on the performance of LPE silicon solar cells, Z. Shi, W. Zhang, G.F. Zheng, V.L. Chin, A. Stephens, M.A. Green and R. Bergmann 41/42 (1996) 53

Hydrogen

- Hydrogen in silicon: A discussion of diffusion and passivation mechanisms, B.L. Sopori, X. Deng, J.P. Benner, A. Rohatgi, P. Sana, S.K. Estreicher, Y.K. Park and M.A. Roberson 41/42 (1996) 159

Indium tin oxide, In_2O_3 : Sn

- Thermal oxidation of CuInSe_2 : Experiment and physico-chemical model, M.E. Boiko and G.A. Medvedkin 41/42 (1996) 307

Interfaces

- Relation of polycrystalline $\text{Cu}(\text{In,Ga})\text{Se}_2$ device efficiency with junction depth and interfacial structure, A.J. Nelson, A.M. Gabor, M.A. Contreras, A. Mason, P. Asoka-Kumar and K.G. Lynn 41/42 (1996) 315

- A study of interface properties in a-Si solar cells with $\mu\text{c-Si(C)}$, W. Ma, S. Aoyama, H. Okamoto and Y. Hamakawa 41/42 (1996) 453

Light trapping (concentration)

- Limits to the efficiency of silicon multilayer thin film solar cells, S.R. Wenham, M.A. Green, S. Edmiston, P. Campbell, L. Koschier, C.B. Honsberg, A.B. Sproul, D. Thorpe, Z. Shi and G. Heiser 41/42 (1996) 3

Metal-organic chemical vapor deposition

- High efficiency AlGaAs/Si tandem solar cell over 20%, M. Umeno, T. Kato, T. Egawa, T. Soga and T. Jimbo 41/42 (1996) 395

Minority carriers

- Effect of nitrogen doping on microdefects and minority charge carrier lifetime of high-purity, dislocation-free and multicrystalline silicon, T.F. Ciszek, T.H. Wang, R.W. Burrows, T. Bekkedahl, M.I. Symko and J.D. Webb 41/42 (1996) 61
- Capitalizing on two dimensional minority carrier injection in silicon solar cell design, C.B. Honsberg, S. Edmiston, L. Koschier, S.R. Wenham, A.B. Sproul and M.A. Green 41/42 (1996) 183

Molybdenum oxide

- A comprehensive characterization of the interfaces in Mo/CIS/CdS/ZnO solar cell structures, D. Schmid, M. Ruckh and H.W. Schock 41/42 (1996) 281

Optical properties

- Thermal oxidation of CuInSe_2 : Experiment and physico-chemical model, M.E. Boiko and G.A. Medvedkin 41/42 (1996) 307

Photocurrent

- Charged and neutral defect states in a-Si:H determined from improved analysis of the constant photocurrent method, F. Siebke, H. Stiebig, A. Abo-Arais and H. Wagner 41/42 (1996) 529

Photoluminescence

- Micro through nanostructure investigations of polycrystalline CdTe: Correlations with processing and electronic structures, D.H. Levi, H.R. Moutinho, F.S. Hasoon, B.M. Keyes, R.K. Ahrenkiel, M. Al-Jassim, L.L. Kazmerski and R.W. Birkmire 41/42 (1996) 381

Photovoltaic effects

- 24% Efficient perl silicon solar cell: Recent improvements in high efficiency silicon cell research, J. Zhao, A. Wang, P.P. Altermatt, S.R. Wenham and M.A. Green 41/42 (1996) 87
- Extended infrared response of silicon solar cells and the impurity photovoltaic effect, M.J. Keevers and M.A. Green 41/42 (1996) 195

Photovoltaics, general properties and types

- 15%-Efficient multicrystalline-silicon photovoltaic modules: cell processing and characterization, W.K. Schubert, D.L. King, T.D. Hund and J.M. Gee 41/42 (1996) 137
- Polycrystalline thin-film technologies: Status and prospects, A. Catalano 41/42 (1996) 205
- Band-gap engineering in $\text{Cu}(\text{In,Ga})\text{Se}_2$ thin films grown from $(\text{In,Ga})_2\text{Se}_3$ precursors, A.M. Gabor, J.R. Tuttle, M.H. Bode, A. Franz, A.L. Tennant, M.A. Contreras, R. Noufi, D.G. Jensen and A.M. Hermann 41/42 (1996) 247
- Thermal oxidation of CuInSe_2 : Experiment and physico-chemical model, M.E. Boiko and G.A. Medvedkin 41/42 (1996) 307
- $\text{Ga}_x\text{In}_{1-x}\text{As}$ thermophotovoltaic converters, M.W. Wanlass, J.S. Ward, K.A. Emery, M.M. Al-Jassim, K.M. Jones and T.J. Coutts 41/42 (1996) 405
- Factors that affect the EVA encapsulant discoloration rate upon accelerated exposure, F.J. Pern 41/42 (1996) 587
- Technical evaluation of a dual-junction same-band-gap amorphous silicon photovoltaic system, T. Strand, L. Mrig, R. Hansen and K. Emery 41/42 (1996) 617
- Photovoltaic module certification and laboratory accreditation criteria development, C.R. Osterwald, R. Hammond, G. Zerlaut and R. D'Aiello 41/42 (1996) 629
- Strategies for enhancing the commercial viability of CdTe-based photovoltaics, C. Eberspacher, C.F. Gay and P.D. Moskowitz 41/42 (1996) 637

Plasma CVD coatings

- Rapid thermal processing of high-efficiency silicon solar cells with controlled in-situ annealing, P. Doshi, A. Rohatgi, M. Ropp, Z. Chen, D. Ruby and D.L. Meier 41/42 (1996) 31

Reliability

- Qualification testing of thin-film and crystalline photovoltaic modules, J. Burdick, J. Pruett and E. Beck 41/42 (1996) 575

Selenium

- $\text{CuIn}_{1-x}\text{Ga}_x\text{Se}_2$ thin film solar cells by two-selenizations process using Se vapor, N.G. Dhare and K.W. Lynn 41/42 (1996) 271
- A photoacoustic study on the effect of Se content on defect levels in CuInSe_2 single crystals, A. Zegadi, M.V. Yakushev, E. Ahmed, R.D. Pilkington, A.E. Hill and R.D. Tomlinson 41/42 (1996) 295

Semiconductor device testing

- High efficiency graded bandgap thin-film polycrystalline $\text{Cu}(\text{In,Ga})\text{Se}_2$ -based solar cells, M.A. Contreras, J. Tuttle, A. Gabor, A. Tennant, K. Ramanathan, S. Asher, A. Franz, J. Keane, L. Wang and R. Noufi 41/42 (1996) 231

Semiconductor junctions

- Use of n -type $(\text{Cu}_2\text{Se})_x(\text{In}_2\text{Se}_3)_{1-x}$ ordered defect chalcopyrite films for solar cell absorber layers, S. Menezes, J. Kessler, D. Schmid, H.W. Schock and R.J. Matson 41/42 (1996) 325

Silicon

- Limits to the efficiency of silicon multilayer thin film solar cells, S.R. Wenham, M.A. Green, S. Edmiston, P. Campbell, L. Koschier, C.B. Honsberg, A.B. Sproul, D. Thorpe, Z. Shi and G. Heiser 41/42 (1996) 3
- Growth of silicon thin layers on cast MG-Si from metal solutions for solar cells, T.H. Wang, T.F. Ciszek, C.R. Schwerdtfeger, H. Moutinho and R. Matson 41/42 (1996) 19
- Rapid thermal processing of high-efficiency silicon solar cells with controlled in-situ annealing, P. Doshi, A. Rohatgi, M. Ropp, Z. Chen, D. Ruby and D.L. Meier 41/42 (1996) 31
- High-flux solar furnace processing of silicon solar cells, Y.S. Tsuo, J.R. Pitts, M.D. Landry, P. Menna, C.E. Bingham, A. Lewandowski and T.F. Ciszek 41/42 (1996) 41
- The effects of solvent and dopant impurities on the performance of LPE silicon solar cells, Z. Shi, W. Zhang, G.F. Zheng, V.L. Chin, A. Stephens, M.A. Green and R. Bergmann 41/42 (1996) 53
- A comparison of the behavior of solar silicon material in different production processes, R.O. Bell, M. Prince, F.V. Wald, W. Schmidt and K.D. Rasch 41/42 (1996) 71
- 24% Efficient perl silicon solar cell: Recent improvements in high efficiency silicon cell research, J. Zhao, A. Wang, P.P. Altermatt, S.R. Wenham and M.A. Green 41/42 (1996) 87
- Recent improvements in the screenprinting technology and comparison with the buried contact technology by 2D-simulation, J. Nijs, E. Demesmaeker, J. Szlufcik, J. Poortmans, L. Frisson, K. De Clercq, M. Ghannam, R. Mertens and R. Van Overstraeten 41/42 (1996) 101
- Electrical and structural properties of the Si/C interface in poly-Si thin films on graphite substrates, T. Reindl, W. Krühler, M. Pauli and J. Müller 41/42 (1996) 127
- Hydrogen in silicon: A discussion of diffusion and passivation mechanisms, B.L. Sopori, X. Deng, J.P. Benner, A. Rohatgi, P. Sana, S.K. Estreicher, Y.K. Park and M.A. Robertson 41/42 (1996) 159
- Recombination lifetime studies of silicon spheres, R.K. Ahrenkiel, D. Levi and J. Arch 41/42 (1996) 171
- Capitalizing on two dimensional minority carrier injection in silicon solar cell design, C.B. Honsberg, S. Edmiston, L. Koschier, S.R. Wenham, A.B. Sproul and M.A. Green 41/42 (1996) 183
- Extended infrared response of silicon solar cells and the impurity photovoltaic effect, M.J. Keever and M.A. Green 41/42 (1996) 195
- Amorphous silicon technology: Coming of age, C.R. Wronski 41/42 (1996) 427

Silicon compounds

- Transport properties of doped silicon oxycarbide microcrystalline films produced by spatial separation techniques, R. Martins, M. Vieira, I. Ferreira, E. Fortunato and L. Guimarães 41/42 (1996) 493

Solar cells

- Limits to the efficiency of silicon multilayer thin film solar cells, S.R. Wenham, M.A. Green, S. Edmiston, P. Campbell, L. Koschier, C.B. Honsberg, A.B. Sproul, D. Thorpe, Z. Shi and G. Heiser 41/42 (1996) 3
- Growth of silicon thin layers on cast MG-Si from metal solutions for solar cells, T.H. Wang, T.F. Ciszek, C.R. Schwerdtfeger, H. Moutinho and R. Matson 41/42 (1996) 19
- Rapid thermal processing of high-efficiency silicon solar cells with controlled in-situ annealing, P. Doshi, A. Rohatgi, M. Ropp, Z. Chen, D. Ruby and D.L. Meier 41/42 (1996) 31
- High-flux solar furnace processing of silicon solar cells, Y.S. Tsuo, J.R. Pitts, M.D. Landry, P. Menna, C.E. Bingham, A. Lewandowski and T.F. Ciszek 41/42 (1996) 41

- The effects of solvent and dopant impurities on the performance of LPE silicon solar cells, Z. Shi, W. Zhang, G.F. Zheng, V.L. Chin, A. Stephens, M.A. Green and R. Bergmann 41/42 (1996) 53
- 24% Efficient perl silicon solar cell: Recent improvements in high efficiency silicon cell research, J. Zhao, A. Wang, P.P. Altermatt, S.R. Wenham and M.A. Green 41/42 (1996) 87
- Recent improvements in the screenprinting technology and comparison with the buried contact technology by 2D-simulation, J. Nijs, E. Demesmaeker, J. Szlufcik, J. Poortmans, L. Frisson, K. De Clercq, M. Ghannam, R. Mertens and R. Van Overstraeten 41/42 (1996) 101
- Hydrogen in silicon: A discussion of diffusion and passivation mechanisms, B.L. Sopori, X. Deng, J.P. Benner, A. Rohatgi, P. Sana, S.K. Estreicher, Y.K. Park and M.A. Roberson 41/42 (1996) 159
- Recombination lifetime studies of silicon spheres, R.K. Ahrenkiel, D. Levi and J. Arch 41/42 (1996) 171
- Capitalizing on two dimensional minority carrier injection in silicon solar cell design, C.B. Honsberg, S. Edmiston, L. Koschier, S.R. Wenham, A.B. Sproul and M.A. Green 41/42 (1996) 183
- Extended infrared response of silicon solar cells and the impurity photovoltaic effect, M.J. Keevers and M.A. Green 41/42 (1996) 195
- Polycrystalline thin-film technologies: Status and prospects, A. Catalano 41/42 (1996) 205
- High efficiency graded bandgap thin-film polycrystalline Cu(In,Ga)Se₂-based solar cells, M.A. Contreras, J. Tuttle, A. Gabor, A. Tennant, K. Ramanathan, S. Asher, A. Franz, J. Keane, L. Wang and R. Noufi 41/42 (1996) 231
- Band-gap engineering in Cu(In,Ga)Se₂ thin films grown from (In,Ga)₂Se₃ precursors, A.M. Gabor, J.R. Tuttle, M.H. Bode, A. Franz, A.L. Tennant, M.A. Contreras, R. Noufi, D.G. Jensen and A.M. Hermann 41/42 (1996) 247
- CuIn_{1-x}Ga_xSe₂ thin film solar cells by two-selenizations process using Se vapor, N.G. Dhre and K.W. Lynn 41/42 (1996) 271
- A comprehensive characterization of the interfaces in Mo/CIS/CdS/ZnO solar cell structures, D. Schmid, M. Ruckh and H.W. Schock 41/42 (1996) 281
- Use of *n*-type (Cu₂Se)₂(In₂Se₃)_{1-x} ordered defect chalcopyrite films for solar cell absorber layers, S. Menezes, J. Kessler, D. Schmid, H.W. Schock and R.J. Matson 41/42 (1996) 325
- A novel cadmium free buffer layer for Cu(In,Ga)Se₂ based solar cells, D. Hariskos, M. Ruckh, U. Rühle, T. Walter, H.W. Schock, J. Hedström and L. Stolt 41/42 (1996) 345
- Recent efficiency gains for CdTe and CuIn_{1-x}Ga_xSe₂ solar cells: What has changed?, J.R. Sites and X. Liu 41/42 (1996) 373
- High efficiency AlGaAs/Si tandem solar cell over 20%, M. Umeno, T. Kato, T. Egawa, T. Soga and T. Jimbo 41/42 (1996) 395
- Thermodynamic efficiency limits for semiconductor solar cells with carrier multiplication, R. Brendel, J.H. Werner and H.J. Queisser 41/42 (1996) 419
- Improvement in stabilized efficiency of a-Si:H solar cells through optimized p/i-interface layers, B. Rech, C. Beneking and H. Wagner 41/42 (1996) 475
- Solution of the ZnO/p contact problem in a-Si:H solar cells, M. Kubon, E. Boechmer, F. Siebke, B. Rech, C. Beneking and H. Wagner 41/42 (1996) 485
- Growth of a-Si:H on transparent conductive oxides for solar cell applications, H.N. Wanka, M.B. Schubert and E. Lotter 41/42 (1996) 519
- Observation and explanation of quantum efficiencies exceeding unity in amorphous silicon solar cells, D. Vanmaekelbergh, J. van de Lagemaat and R.E.I. Schropp 41/42 (1996) 537
- Solar furnace*
- High-flux solar furnace processing of silicon solar cells, Y.S. Tsuo, J.R. Pitts, M.D. Landry, P. Menna, C.E. Bingham, A. Lewandowski and T.F. Ciszek 41/42 (1996) 41
- Spectral response*
- Extended infrared response of silicon solar cells and the impurity photovoltaic effect, M.J. Keevers and M.A. Green 41/42 (1996) 195

Structural properties

- Electrical and structural properties of the Si/C interface in poly-Si thin films on graphite substrates, T. Reindl, W. Krühler, M. Pauli and J. Müller 41/42 (1996) 127

Thermal analysis

- Actual optical and thermal performance of PV-modules, S. Krauter and R. Hanitsch 41/42 (1996) 557

Thin film solar cells

- A new fabrication method for multicrystalline silicon layers on graphite substrates suited for low-cost thin film solar cells, M. Pauli, T. Reindl, W. Krühler, F. Homberg and J. Müller 41/42 (1996) 119
- CuInSe₂ film growth using precursors deposited at low temperature, S. Zweigart, S.M. Sun, G. Bilger and H.W. Schock 41/42 (1996) 219

Thin films

- Polycrystalline thin-film technologies: Status and prospects, A. Catalano 41/42 (1996) 205
- High efficiency graded bandgap thin-film polycrystalline Cu(In,Ga)Se₂-based solar cells, M.A. Contreras, J. Tuttle, A. Gabor, A. Tennant, K. Ramanathan, S. Asher, A. Franz, J. Keane, L. Wang and R. Noufi 41/42 (1996) 231
- Band-gap engineering in Cu(In,Ga)Se₂ thin films grown from (In,Ga)₂Se₃ precursors, A.M. Gabor, J.R. Tuttle, M.H. Bode, A. Franz, A.L. Tennant, M.A. Contreras, R. Noufi, D.G. Jensen and A.M. Hermann 41/42 (1996) 247
- CuIn_{1-x}Ga_xSe₂ thin film solar cells by two-selenizations process using Se vapor, N.G. Dhare and K.W. Lynn 41/42 (1996) 271
- Influence of substrates on the electrical properties of Cu(In,Ga)Se₂ thin films, M. Ruckh, D. Schmid, M. Kaiser, R. Schäffler, T. Walter and H.W. Schock 41/42 (1996) 335
- A novel cadmium free buffer layer for Cu(In,Ga)Se₂ based solar cells, D. Hariskos, M. Ruckh, U. Rühle, T. Walter, H.W. Schock, J. Hedström and L. Stolt 41/42 (1996) 345
- Sequential processes for the deposition of polycrystalline Cu(In,Ga)(S,Se)₂ thin films: Growth mechanism and devices, T. Walter, D. Braunger, H. Dittrich, Ch. Köble, R. Herberholz and H.W. Schock 41/42 (1996) 355
- Micro through nanostructure investigations of polycrystalline CdTe: Correlations with processing and electronic structures, D.H. Levi, H.R. Moutinho, F.S. Hasoon, B.M. Keyes, R.K. Ahrenkiel, M. Al-Jassim, L.L. Kazmerski and R.W. Birkmire 41/42 (1996) 381
- Qualification testing of thin-film and crystalline photovoltaic modules, J. Burdick, J. Pruett and E. Beck 41/42 (1996) 575

Transparent conductors

- Growth of a-Si:H on transparent conductive oxides for solar cell applications, H.N. Wanka, M.B. Schubert and E. Lotter 41/42 (1996) 519

Zinc oxide, ZnO

- A comprehensive characterization of the interfaces in Mo/CIS/CdS/ZnO solar cell structures, D. Schmid, M. Ruckh and H.W. Schock 41/42 (1996) 281
- Metastable shunt paths in a-Si solar cells, T.J. McMahon and M.S. Bennett 41/42 (1996) 465
- Solution of the ZnO/p contact problem in a-Si:H solar cells, M. Kubon, E. Boehmer, F. Siebke, B. Rech, C. Beneking and H. Wagner 41/42 (1996) 485

